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Claim Amendments

1. (Original) A fuel cell, comprising:

an anode support plate and a cathode support plate and a membrane electrode assembly disposed between said anode and cathode support plates, said membrane electrode assembly comprising a polymer electrolyte membrane, at least one of said support
5 plates comprising a hydrophilic substrate layer having pores therein;

a water transport plate adjacent to each said hydrophilic substrate layer, each said water transport plate having a passageway for a water stream and another passageway for a reactant gas stream; and

a partially hydrophobic porous carbon fluoropolymer particulate composite diffusion
10 layer disposed between at least one said hydrophilic substrate layer and said membrane electrode assembly, each said diffusion layer comprising about 10% fluoropolymer by weight.

2. (Original) A fuel cell according to claim 1 wherein:

said diffusion layer comprises a fluoropolymer selected from the group consisting of polytetrafluoroethylene, fluorinated ethylene propylene, polytetrafluoroethylene-co-perfluoromethyl vinyl ether, copolymers of ethylene and tetrafluoroethylene, copolymers of
5 ethylene and chlorotrifluoroethylene, polyvinylidene fluoride, polyvinyl fluoride and amorphous fluoropolymers.

3. (Original) A fuel cell, comprising:

an anode support plate and a cathode support plate and a membrane electrode assembly disposed between said anode and cathode support plates, said membrane electrode assembly comprising a polymer electrolyte membrane, at least one of said support
5 plates comprising a hydrophilic substrate layer having pores therein;

a water transport plate adjacent to each said hydrophilic substrate layer, each said water transport plate having a passageway for a water stream and another passageway for a reactant gas stream; and

a diffusion layer disposed between at least one said hydrophilic substrate layer and

10 said membrane electrode assembly, the thickness of each said diffusion layer being more than about 5.0 microns and less than 25.0 microns.

4, 5. (Cancelled)